DOCUMENT RESUME

ED 148 042 EC 103 071

AUTHOR Branch, Robert L.; Hodik, Lois B.
TITLE A Computer-Based System for Managing Special Education Follow-Up Data. Final Report.
INSTITUTION Sacramento County Office of Education, Calif.
SPONS AGENCY California State Dept. of Education, Sacramento. Div. of Special Education.
PUB DATE Aug 76
NOTE 54p.; Project No. 75-30

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Computer Programs; *Computers; Employment; *Evaluation Methods; *Followup Studies; *Handicapped Children; *Information Systems; Secondary Education; *Surveys; Vocational Adjustment

ABSTRACT

Described is the development of a computer-based survey system for providing followup information on 202 former special education students. Among topics addressed are the construction of a student master file, use of telephone interviews, development of the survey instrument (including interviews with teachers and administrators and pilot testing of the draft questionnaire), establishment of a data analysis and reporting system, input to the data analysis program, processes involved in data analysis, and output of the data analysis program. The second section covers results of the field test of the followup procedure, including that 64% of the students were unemployed 6 months following school, 91% of the trainable mentally retarded students attended sheltered workshops, and 66% wished they had more job training and counseling in school. Advantages and disadvantages of a computer based system are considered. (CL)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED148042

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

A COMPUTER-BASED SYSTEM FOR MANAGING SPECIAL EDUCATION FOLLOW-UP DATA

Final Report
Project No. 75-30

Project Director: Robert L. Branch
Director of Research and Data Processing

Principal Investigator: Lois B. Hodik

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Stuart Greenfeld

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Leo A. Palmiter, Superintendent
Sacramento County Office of Education
9738 Lincoln Village Drive
Sacramento, California 95827
August, 1976

EC103071

This research project was developed with funds authorized under California Education Code Section 18104 and administered through the Bureau of Educational Improvement for the Handicapped, Office of Special Education, California State Department of Education. The report does not necessarily represent the California State Department of Education's official opinion or policy. The project director is solely responsible for the factual accuracy of all material developed in the report.

PURPOSE

The study to be discussed in this paper had two major purposes. The first was to develop a model for conducting follow-up studies of former special education students. The second purpose was to develop a computer-based system to manage data collection, data analysis, and reporting. The survey system was to be designed to serve individual schools, school districts, and county offices of education by providing systematically collected information upon which program planning decisions could be made.

Follow-up studies have been found to provide useful evaluative data about many kinds of educational programs, most often for vocational education and job training programs. The recent emphasis on Special Education brings with it the need for standardized data. Because decisions about special education programs must be made at all educational levels, a systematically applied model which uses a computer to assist in the survey process seems the logical method for managing the needed data.

The problem posed by this study was to determine whether or not a computer-based system could be used for special education follow-up surveys, or whether the unique characteristics of the population to be studied made such a system impossible or impractical.

The development of any survey system poses questions about the mode and content of data collection. A computer-based survey system imposes some strict limitations on what data can be analyzed. A target population with a wide range of physical and mental capacities may impose even more limitations on what and how data can be collected. The specific questions addressed in this study, then, were as follows:

a. How can follow-up data be collected using a format which is conducive to analysis by computer?

b. Can the same data be collected about all students, regardless of the nature of their exceptionality?

c. How can a survey system be designed which allows for efficient collection and analysis of large quantities of data on a county level as well as on the school or program level?

The computer-based survey system developed in answer to these questions is discussed below. It contains three major components: a set of data collection procedures which utilizes a computer student master file to generate telephone lists or mail labels; a survey instrument containing questions which can be analyzed by a computer; and a data analysis program which also produces computer printouts of reports. Reports can be generated which present data by county, district, school, type of program, year of school termination, or any combination of these variables. The development of each of the components will be discussed in detail and the results of the field test will be reported.

METHOD

The survey system was designed by staff from a county office of education research and data processing department which serves as a regional data processing center in northern California. The districts which participated in the pilot study vary in size and type; they were both urban and rural. They also range in the degree of their involvement with Special Education programs; i.e., from a district with only one type of special program to a district involved in implementing a Comprehensive Master Plan for Special Education. The methods used in the system were designed with and for a cross section of districts and programs. The methods will be described in the chronological order in which they occurred as the survey system was implemented.

Choosing a Data Collection Approach

Most special education follow-up studies reported in the literature were conducted using face-to-face interviews or mailed questionnaires. Interviews have the advantage of providing an opportunity to establish rapport with the subject. They are particularly conducive to surveying subjects with physical or mental limitations. The interviewer has some control of the data gathering process. Interviews have the disadvantages of being time-consumming and costly. They require that staff be thoroughly trained in standard data collection procedures to ensure that the results will be reliable. To take full advantage of this personal approach, open-ended questions will be asked and answered, and their results must then be categorized for data analysis purposes. This approach adds more time and expense to the already costly process.

Mailed questionnaires, on the other hand, do not require training of staff to administer them; reliability of the administration of the items is not a factor. They take little time to prepare and process. Their major disadvantages, however, are that they are a one-time effort (unless one plans to mail "reminder" surveys to non-respondents) and they usually yield a low rate of return. The researcher has no control over which or how questions are answered except by explicit written instructions. The questionnaires also require that the subject be able to read the questions and respond in writing, making them impractical for use with some handicapped subjects. In addition, they limit the number and type of questions which can be asked.

Because of the disadvantages of both of these methods for data collection, it was decided that a telephone survey would be attempted as the primary method of data gathering. Mailed surveys could be sent to those who had no telephones (there were few) and those who could not otherwise be reached by telephone. Using a telephone survey technique allows for some rapport to

be developed through voice contact and provides a fair amount of control of the questioning. Telephone surveyors need much less training than interviewers and they can be supervised on site as they collect data. Those subjects not reached one day can be called at another time with little time wasted on each attempt. Subjects need not read or write, and if questions are not understood, they can ask for clarification.

Like the mail survey, surveying by telephone limits the number and type of questions which can be asked. It is difficult to keep a subject engaged in a telephone conversation for more than three minutes, and it is difficult to ask multiple choice or five category rating scale items in an oral mode. Despite these limitations, it was determined that telephoning was the most efficient procedure to employ; if it failed, a different procedure would be attempted.

It should be noted that many special education staff members in the districts were doubtful that families of former students would be cooperative in answering questions by telephone. Their expectation was that some families would want to see the credentials of the person asking questions or would simply refuse to participate in the survey if not approached in person.

Identifying the Population and Obtaining Demographic Data

Once the major decision about the mode of data collection was made, the question of how to obtain the names and telephone numbers of the students and how to transform them into a useful format for telephoning was addressed. Several problems were involved. First, the school districts were the only resource for identifying the students to be surveyed. The records maintained by districts were filed in a non-standard manner and in different formats. Districts were concerned about the confidentiality of their records and about

giving notice to the subjects that their name had been released. Much time was spent examining the Privacy Rights of Parents and Students Act. To comply with this Act, a signed "Notice of Inspection of Educational Records" was placed in the cummulative folder of each student whose name was released to the County Office.

Once the confidentiality matter was resolved, school districts released the names of the students to be surveyed. For the purposes of the development of the follow-up system, only those students who had graduated or terminated their public school education during the last school year (1974-75) and who were at least 16 years of age were identified as survey subjects. One participating district identified students from the two previous years so that a longitudinal study could be conducted. The roster developed to facilitate this identification process can be found in Appendix A.

The student roster form contains all the information necessary to conduct the survey and group the results for data analysis by program type, school, district, county, and year. Districts had little trouble in understanding and completing the form. Their major problem was in identifying the subjects from their own records. Considerable clerical time was spent in most districts completing this task and the resulting lists do not contain the total population we wished to survey. This factor was the greatest problem encountered during the study and it has important implications for the validity and analysis of the data. These concerns will be discussed later in this paper.

Developing a Student Master File

The roster in Appendix A had two major purposes: to provide a vehicle for schools to input information about the survey subjects and to provide a

form, in keypunch format, for input to a Student Master File. The only intervening steps required were coding of the county, district, school, program, and ethnic information, and an audit of the forms to assure that they were completed correctly and were readable. Each student was assigned a seven digit number for identification purposes.

The Student Master File is stored on computer tape. This file was used to produce telephone lists and/or mail labels for data collection. It was also used in the data analysis process to match program, school, district, county, and year data with the responses from an individual student. This use will be discussed in the data analysis section of the paper. The Student Master File is a logical way to store individually identifiable information securely for use in subsequent annual follow-up studies as well as for the creation of the Telephone List.

Creating a Telephone List

A prototype of the Telephone List appears in Appendix B. It is a computer printout of all the subjects to be surveyed. The list contains only the information needed to conduct the telephone survey. For instance, ethnic identification, school attended, etc. are not on the list. The columns on the right side of the list are for use by the telephone surveyor to indicate that the person has been contacted (HAVE DATA) or that the line is busy (NA/BUSY). The research coordinators can use these columns to make a quick count of how much work remains to be done and what the success rate of data gathering has been.

Some of the column headings need explanation. "NO PHONE" is used not only for the obvious, but for people whose phone number has changed and Directory Assistance has no new number. "MAIL LABL" is used to indicate that

a survey should be mailed to the person because they have no telephone or could not be reached by telephone. Keypunch operators use this telephone list to prepare input cards for the label option computer program. "SURV SENT" is used to indicate that a survey has been mailed. "WRONG ADDRS" is checked if the mailed survey is returned "undeliverable" from the post office. "CAN'T ANS" is used to indicate that the person reached on the telephone did not know the answers to the questions (perhaps it was a brother or sister) or the person refused to answer questions. If this latter column is checked, no further surveying is attempted.

The following is a summary of the steps to be taken before collection of survey data:

1. Districts or schools identify population to be surveyed and submit roster. (Appendix A)
2. Rosters are audited and coded by survey staff.
3. Information on rosters is keypunched for computer input.
4. Computer program creates Student Master File on tape.
5. Student Master File is used to create Telephone List (Appendix B) or mail labels.

The collection of survey data involves the following steps:

1. Telephone each subject using Telephone List.
2. Administer survey items and record responses on survey instrument. (See next section)
3. Produce mail labels by computer for subjects not reached by telephone.
4. Mail surveys and check in returned surveys on Telephone List.

Development of the Survey Instrument

The development of appropriate items for the survey was accomplished in steps employing several types of resources. The first step in the process was a search of the literature for follow-up studies of special education students. Several studies were found which collected data from only one type of special education student (e.g., Blessing, 1972; Howe, 1967; Knotting & Brozovich, 1969; McKinnon, 1970). None of the studies examined was computer-based. The studies did yield useful information about what kinds of data one might want to collect. Follow-up studies conducted in local school districts in previous years were similarly helpful (e.g. Rhodes, 1971). The article which was of most help was the review of follow-up studies by Kokaska (1968) which pointed out some of the errors and pitfalls in other studies. On the basis of his criticism, few items were included which required subjects to report feelings about past experiences since recall is subject to considerable error; and several items were included which could be used to determine the reasons why people were unemployed, a response to Kokaska's concern about the meaning of "out of the labor market". Other ideas of his and other authors were considered in developing survey items.

The second step in the item development process was a series of about 25 interviews with special education teachers and administrators in local districts and on-site visits to various types of special education programs. Although the interviews were unstructured, the following questions were usually asked: "What are your goals for your students?"; "If your worst fears are realized, what will your students be doing five years after they leave school?"; "What do you want them to be doing five years after they leave school?"; "What specific things are you trying to teach them to help them reach your expectations?"

The questions were directed toward goals and expectations for several reasons. One reason was to direct responses away from what survey questions the teachers and administrators thought should be asked. There are many things people would like to know about their former students which are not relevant to the educational program offered. The purpose of the survey was to provide usable information upon which program decisions could be made. Another reason for asking questions about goals for various programs was to determine whether one set of survey items could be used to gather data about all types of students (physically handicapped, mentally retarded, emotionally disturbed, and educationally handicapped), or whether separate surveys were needed.

On the basis of the interviews and visits a set of goals for special education students was written. The goals ranged from "practices independent personal hygiene and good health habits" to "manages own economic resources or contributes to own financial support". They also included such things as use of transportation and leisure time, communication skills, basic academic and vocational skills. A critical look at these goals led to the conclusion that at least some students in each type of special education program could be expected to achieve each of the goals. For instance, some students from classes for the trainable mentally retarded were known to have jobs; they would therefore have met the goal "contribute to their own financial support". It seemed theoretically possible, therefore, to construct one survey instrument for all types of students. The goals for all students are the same, even though the expectations may be different for some students.

The third step in the process of instrument development was to construct items. The items needed to meet several criteria. They must measure the

attainment (or non-attainment) of the goals and expectations of the school programs; i.e., they must provide "need to know" as opposed to "nice to know" information. Second, respondents must be able to answer questions in discrete terms (e.g., "yes" or "no", "I drive a car", "I live with my parents"). Items which ask for open-ended responses can not be analyzed by a computer. Third, the items must be short and clearly stated. "Are you working now?" is preferable to "Are you currently employed?" Every attempt was made to keep the vocabulary simple. Fourth, wherever possible, the items should be questions of fact, not opinion, so that members of the family other than the subject could answer them. Family members would be answering questions for deaf people, and in some cases for retarded subjects. When items requiring opinions seem necessary, they should ask for a limited range of qualitative judgement on the part of the respondent. Where one might wish to ask a respondent if a factor was very important, somewhat important, not too important, or unimportant, it must be remembered that that kind of question is difficult to ask over the phone, and only rather sophisticated people are likely to be able to answer those questions verbally without considerable thought.

The first attempt at constructing items which met these criteria was difficult, but it was possible in most cases to find a way to ask the desired questions. Fifty items were written which met all the criteria. This was too many items to include in a telephone survey. To determine which items were most important, twenty-five special education teachers and administrators were asked to select the 15 items they thought would yield the most useful information and prioritize them. Eighteen people representing all seven districts in the field test area and all areas of special education offered in

the county responded. On the basis of their responses, 22 items were selected for inclusion in the study. The number of people involved in the construction, validation, and critiquing of the survey items, including those interviewed for ideas in step 1 above, was forty-nine.

Construction of the survey items required not only writing the questions, but also listing the possible answers. This was especially important because it had been decided that alternative responses would not be suggested to subjects by the interviewers. All possible answers had to be anticipated. This was necessary in order to design a form for recording responses which could be used as input for analysis of the data by computer. Open-ended responses could not be analyzed. To ensure that the items were understandable and answerable, and that responses had indeed been anticipated, a fourth step was taken in the development of the survey instrument: a pilot study was conducted.

Fifty students representing all types of special education programs and all districts were selected. The pilot study was conducted over a two evening period in mid-December. High school vocational education students were trained to administer the survey. Fifty-eight percent of the selected subjects were contacted; eight percent of the sample were still attending high school and should not have been identified as part of the survey population; only one person refused to answer the questions. The responses to each item of those contacted were analyzed, and a few revisions were made in the items and item responses as a result of the pilot study.

The final questionnaire, as it was administered to the remaining subjects, can be found in Appendix C. A similar form of the questionnaire to be used for surveying by mail was also developed. To obtain the most data in the least amount of time, some of the questions were asked only of those who

were currently employed (items 5 to 9). Other items were for only the unemployed (items 10 to 14). Items 1 through 4 and 15 through 22 were asked of all subjects. With one exception, all subjects answered 17 of the 22 questions. Those students who reported that they were still in high school (item 3) were asked no further questions.

The order of the items was carefully analyzed. Items flow logically from the preceeding one, even when the five employment/unemployment items are eliminated. Items requesting more thoughtful or personal responses are asked near the end of the survey when it is assumed that a rapport had been established. If the subject felt uncomfortable answering personal questions and wished to terminate the interview, at least some data would have been gathered. The most personal questions (19 and 20) were quickly followed by a less probing one (item 21).

The pilot study indicated that the survey would take approximately three minutes to conduct. It was found that some subjects might be asked the wrong set of employment questions by mistake. Also, it was observed that the interviewers were as reluctant to ask a few of the personal questions as the subjects were reluctant to answer them. Since only one person had actually refused to answer, however, it seemed safe to proceed with the questions as they were. Data obtained in the subsequent field test of the complete system will be reported in the Results section.

Developing a Data Analysis and Reporting System

The computer based system developed for this study will be discussed in terms of the input, process, and output. The following requirements were set in advance for the data analysis part of the system: that personally identifiable information could not easily be accessed; that the analysis program would allow data to be selected, grouped, analyzed, and reported

for each county, district, school, program, and year of graduation or termination; the data must be filed for future analysis. The requirements for data grouping and storage would permit considerable flexibility in working with the data and consequently meet the various needs of decision-makers for information.

Input to Data Analysis Program

There are three inputs to the data analysis system. The first is information from the Student Master File discussed above. This file contains demographic data supplied by the schools or districts per the Roster in Appendix A. The following is a list of the information from the Master File which is used in the data analysis process:

Individually assigned subject identification number

Type of program attended

School number

District number

County number

Year of graduation or termination

This information from the computer tape is matched by the computer with the identification number on each subject's response form to provide information for grouping of data for analysis. This matching process has several advantages. First, the information used for grouping data comes from the most reliable source: the schools. Second, it is therefore unnecessary to ask for any of the information during the survey. This saves time on the telephone. Additional time is saved because the information need not be recorded by interviewers on the response forms and keypunch operators need not punch it. Third, the identifiable information does not need to appear

on the Telephone List, and even the subject's name does not appear on the response form. This system keeps the information given by respondents confidential.

The second input to the data analysis system is the survey response data. These data are recorded on the Survey Response Form found in Appendix C. When a subject is contacted, the telephone surveyor records the identification number of the subject from the Telephone List (Appendix B) on the response form and checks the subject's responses in the appropriate boxes. The blank at the end of survey, titled "80", is used to indicate one of the following: the subject was contacted and data were collected; the subject was contacted and found to be in high school; the subject was deceased; the subject did not wish to respond to the survey questions; the subject was not contacted. This information is used to calculate population data for each report. One survey response form is used for each subject. Although it would be possible to reduce the cost by providing telephone surveyors with forms which did not also contain the survey questions, such a procedure would require the surveyor to manage the telephone list, the survey question sheet, and a response record form simultaneously, and such a process could become unwieldly.

Response forms completed by the telephone surveyor are audited prior to keypunching. Questions about the accuracy of the data are directed to the appropriate interviewer. The audit process ensures that responses are clearly marked, that all appropriate questions were asked and answered, and that the identification number and response codes are properly recorded. The keypunched cards become the input source for the computer program.

The third input in the process is a set of control cards for selection of reports. If reports are to be produced for each program type within particular

districts, the control cards contain the code numbers for the districts and the programs to be reported.

Examples of some of the options for reports are as follows:

a. By county by program: All responses of subjects in a county will be separated into the programs they attended. There will be one report for each type of program (e.g., Deaf, TMR, etc.) and a county total report combining the responses of all subjects.

b. By district by year: All subjects within a district who terminated school during the same school year will be grouped. A report will be produced for each year for which data are available. The report will not separate subjects according to the school or types of programs they attended.

In summary, the control cards are used to indicate what types of grouped reports are desired. Reports for individual students can not be selected.

Numeric codes, mentioned several times in this paper, are used on the student roster form as well as on the control cards. The county code, a two digit number, and the district and school codes, each three-digit numbers, were developed from the codes assigned and used in the California Public School Directory. The last three digits of the statewide district and school codes were used. The program codes are two digit numbers which were assigned to each program listed in the Classification of Special Education Programs in the California Master Plan for Special Education (1974, p.23). This classification system can be used by schools who are not yet involved in Master Planning, as well as those who are. The subjects surveyed in this study attended school before master planning was implemented. Their programs

were coded using the classification assigned by the school they attended. Their responses were aggregated so that program reports were produced for the following groups: physically handicapped; educational handicapped (learning disability and behavior disorders); educable mentally retarded; trainable mentally retarded; emotional disorders (autistic and seriously emotionally disturbed); other health impaired. The system was developed, however, to provide analysis of data for each of the 19 program types provided for in the Master Plan.

Process for Analysis of Data

The processes performed by the data analysis program include matching survey data with demographic data for each respondent, sorting and grouping data for analysis, and performing simple calculations with the response data. These calculations will be discussed in this section.

As mentioned earlier, school districts had difficulty in identifying the population to be surveyed. Some districts could only identify graduates and could not identify terminators (drop-outs). It was difficult to determine from the records in some Special Education departments which students had terminated the programs because they moved from the district and which students had been returned to regular classes but were still attending the school. Most students who had moved left no forwarding address; if they had moved more than six months before the post office would not forward their mail; consequently they could not be surveyed. Because of these limitations in defining the survey population, it was decided that use of inferential statistics was inappropriate since they could be misleading. If, in future years, school districts could better identify their students, appropriate statistical treatments could be added to the analysis program.

It seems more responsible not to provide data which could easily be "over-interpreted" than to provide the data and attempt to explain all the appropriate cautions which must be taken in analyzing the data.

The following is a list of the data which are calculated for the report:

1. The number of subjects whose names were submitted for surveying. This number is calculated based on the number of people in the Master File for the particular district, school, program, etc. for which the report is being produced.
2. The number of respondents.
3. The number of subjects who could not be reached because they had moved and the post office would no longer forward their mail.
4. The total number of respondents answering each of the items.
5. The number of respondents giving each answer to each item.
6. The percentage of respondents giving each answer to each item.
7. Cross tabulations of the responses of employed and of unemployed respondents to each item.
8. Cross tabulations of the responses of graduates and non-graduates to each item.

These data provide the opportunity to compare the number of subjects for which data were collected with the number in the "population" as it was identified by the district. If districts are certain that they have identified their population accurately they can calculate the probability that the sample surveyed is representative. The cross tabulations provide for comparison of responses to most items of those who are employed with those who are not. It could be determined for instance, whether a much greater

number of subjects who had had job training courses in high school were employed, or whether only those physically handicapped people who rode the bus or drove a car had jobs. The analysis program does not provide for statistical comparisons between groups; however data users who feel confident that their data are representative can apply appropriate statistical tests.

Output of Data Analysis Program

Two examples of the computer output can be found in Appendices D and E. The first is a report of the data collected from all students in the county and is labeled "County Report". To produce this report 1974-75 subjects in all programs, in all schools, in all districts were grouped for analysis. The report can be used to get an over-all picture of the status of former special education students in the county who left school during the 1974-75 school year. The second example is of a program report for a particular district. This report for the Educationally Handicapped program includes students who had been in learning disability or behavior disorder programs. It would have been possible to produce separate reports for each of these programs; however, because the school had been using the EH classification system and the number of students was so small, the data were grouped. It should be noted that the data in this program report are included in the county report.

The format for the reports is meant to be readable and understandable to all data users while providing space for researchers to calculate additional statistics. Although the questions as they were asked on the survey are not duplicated on the report, it was hoped that the items did not lose much in translation to a shorter form.

Method Summary

The research question for this study was to determine whether a computer-based system could be developed to help conduct follow-up studies of special education students. This section has described the development of such a system. Much of what is usually found in the methodology section of a research study (e.g., number of subjects surveyed, training of interviewers, etc.) will be discussed in the Results section of this report. The results of this study were a first attempt at implementing the system developed to answer the research question.

Before the results are discussed, however, a summary of the computer-based system will be given. The vehicle for this summary is a flow chart (Appendix F) which shows the chronological flow of both forms and procedures. Complete documentation of the computer system (including hardware and software specifications, disc and tape field formats, keypunch and computer operator instructions, and the computer programs) is available for those who wish to operate the system on their own computers.

RESULTS

In this section the results of the field test of the follow-up system will be discussed. Of particular interest are the number of subjects contacted using this system and the kinds of responses they gave to the items. Of equal importance are the computer programs and printouts developed to aid in collecting and analyzing data. Samples of most of the computer output are provided in the Appendices. Potential users of this and similar systems must judge for themselves whether or not the format and content of the printouts are useful and can satisfy their evaluation and reporting needs.

Results Using the Data Collection System

The field test was conducted in mid-December and early January of 1975 and 1976. Therefore, the data collected reflect the status of graduates who had been out of school six to seven months, and of drop-outs who had been out of school for six months to a year and a half. The field test also included students from one district who had left school during the 1972-73 and the 1973-74 school years. (The data collected from these subjects are not included with the 1974-75 data in Appendix D.) The data were collected by telephone between 5:00 and 9:00 p.m. Each telephone call took between two and three and a half minutes to complete, depending on how much the subject wished to talk. Data collection by telephone took a total of thirty work hours. The data were collected by high school girls who had been recommended by the teacher of their telephone operators vocational education course. About one and one half hours were spent training the student operators in survey procedures. The training included discussion about special education programs and the variety of individuals they would be contacting. Each survey item was discussed in detail as were the procedures for recording responses. General telephone courtesy and procedures were put in written form, and practice sessions were conducted.

The interview format was as follows: "Hello, I'm _____ calling from the County Office of Education. May I speak with_____ for a moment?" If the person was not home or was unable to speak over the telephone because of their special handicap, the questions were asked of a parent or other family member. In most cases the subject answered the questions. The interview continued, "We are contacting some of our former students. Would you mind answering a few questions?" Once consent was attained,

questioning began. Data collection was supervised and monitored by one adult so that problems could be handled and mistakes could be corrected. In a few instances it was necessary for the supervisor to intervene and assure subjects or their parents of the authenticity of the caller. Most people were willing to answer the questions with little hesitation and less than 5% refused to participate.

At least three attempts, on three different occasions, were made to contact subjects. If no contact was made by telephone for whatever reason, surveys were mailed to the addresses submitted by the school districts. Only 13% of the mailed questionnaires were returned, completed. Twenty-six percent were returned as undeliverable by the post office. Of the total data reported in this study, 9% was gathered through mailed questionnaires, and 91% was gathered over the telephone.

Table I shows the number of identified subjects in each program in the survey population and the number and percentage who were contacted. Of the 329 subjects in the study, 202 (61%) were contacted. The percentage of contacts decreased in direct relation to the currency of the student information. The 63% contacted for the most current year is comparable to, or better then, the rate achieved in previous locally conducted follow-up surveys of special education students. The contact rate was higher than that predicted by Special Education Directors at the beginning of the study. The contact rate can also be favorably compared with the rates achieved in a follow-up study of vocational education students which was conducted simultaneously using similar procedures (cf. Table I).

Two of the factors which were of concern in selecting a data collection technique have been discussed: the amount of time spent training interviewers

TABLE I

Field Test Response Rates

Type of Respondent	1974 - 75 Number Attempted	1974 - 75 Number Contacted	1974 - 75 Percent Contacted	1973 - 74* Number Attempted	1973 - 74* Number Contacted	1973 - 74* Percent Contacted	1972 - 73* Number Attempted	1972 - 73* Number Contacted	1972 - 73* Percent Contacted
Physically Handicapped	16	12	75	13	10	77	13	6	46
Educationally Handicapped	75	54	72	22	15	68	20	8	40
Educable Mentally Retarded	78	48	62	18	8	44	21	16	76
Trainable Mentally Retarded	28	17	61	10	5	50	2	1	50
Emotional Disorders	10	2	20	--	--	--	--	--	--
Other Health Impaired	3	0	0	--	--	--	--	--	--
TOTALS	210	133	63	63	38	60	56	31	55
Comparison Data**	1938	1382	71	1673	773	46	754	296	39

* The field test was conducted for these years for only one district.
** Figures are from a vocational education follow-up study conducted simultaneously using similar procedures.

and the number of people who could be reached. A third factor considered was the degree of control which could be exerted over the collection of data. The data in Appendix D indicate that perfect control was not achieved. An example can be found by examining the cross tabulated data for items 5 through 14. Some of the employed respondents answered the questions for unemployed subjects and vice versa. It is unlikely that these few mistakes will distort the data significantly. It is probable that some amount of additional training of interviewers could remedy most of this problem.

Another area of concern was the amount of time necessary for respondents to remain on the telephone to answer all questions. The data for question 20 show that this is somewhat of a problem. One hundred eighteen respondents should have answered question 20 (133 minus the 15 still in high school). The data show that only 112 people did answer, a loss of six. On the basis of this relatively small loss of data (probably due to impatience on the part of subjects or interviewers) the survey need not be shortened. Apparently most people are willing to participate in a 2 to 3 minute interview over the telephone.

Results Obtained Using the Survey Instrument

The reliability and validity of the data are of concern in any study. In terms of validity, the content validity of the items was established by teachers ratings (see the section on development of the survey instrument). A major fault of the study was that reliability of the survey instrument was not established. A few subjects were contacted twice by mistake, and their two sets of responses were compared. In no case did answers to more than one item differ. However, no concrete evidence of the reliability of the instrument can be reported. Since most of the questions are of a factual nature, the responses are more likely to reflect reliable information.

One way to evaluate results is with that amalgam of experience and logic known as common sense. The problem with this approach is that it begs the data to confirm the evaluator's preconceptions and biases. With this caution in mind, responses to some of the questions will be discussed. The following data are from item number 4.

Item 4: Are you working now?

	TOTAL		Phys Hand		Educ Hand		EMR		TMR		Emot Dist	
	#	%	#	%	#	%	#	%	#	%	#	%
Yes	42	36	3	30	19	42	17	38	2	12	1	50
No	76	64	7	70	26	58	28	62	14	88	1	50
Total	118	100	10	100	45	100	45	100	16	100	2	100

The data show that 64% of the subjects were unemployed six months after leaving school, and only 36% are employed. Data collected from vocational education students in the same county who left school during the same year show that the ratio is reversed for these students: 60% are employed and 40% are not employed. Most of the vocational education students were high school graduates, but only 71% of the special education students had diplomas. Since the data collected from special education students show that graduates are twice as likely to have a job than non-graduates, some of the discrepancy between the two sets of data might be accounted for. An examination of the data about which special education students are now employed reveals that the greatest percentage are the educationally handicapped. The smallest percentage employed are trainable mentally retarded. These data seem to coincide

with a common sense notion about the employability of different types of special education students.

Item 12: Are you able to work (physically and mentally)?

	TOTAL		Phys Hand		Educ Hand		EMR		TMR		Emot Dist	
	#	%	#	%	#	%	#	%	#	%	#	%
Yes	49	67	4	57	21	84	21	78	2	15	1	100
No	24	33	3	43	4	16	6	22	11	85	0	0
Total	73	100	7	100	25	100	27	100	13	100	1	100

The data in item 12 appear to support this employability concept. This item was asked only of those respondents who did not have a job. In question #4 the educationally handicapped subjects most often reported they were employed. In question 12, they most often reported they were able to work. They were followed in turn by the educable mentally retarded, physically handicapped, and finally the trainable mentally retarded, all in the same order as the ratios of those who reported they had jobs in item #4.

Despite the limitations of the data due to schools not being able to accurately define the population and due to a less than perfect rate of return, comments about responses to some of the other items seem to be appropriate. Ninety-one percent of the TMR students surveyed attend workshops for retarded adults. Only 18% of special education students not still in high school are receiving any kind of education or training (compared to 52% of vocational education graduates). Of those who are employed, 18% reported they received help getting their job from a school teacher or counselor, and 22% reported they learned the skills for their jobs in school.

These percentages are probably lower than the schools would anticipate. Half of the employed report that they do not use reading skills on their jobs and two-thirds do not use arithmetic skills. Of those unemployed, half say they have looked for a job and only 30% say they have worked. The total of those who are now working and those who have worked since leaving school is 54%.

Two-thirds of all students surveyed wished they had had more job training and career counseling in high school. A recent student needs survey of 12th grade students in regular classes in this county indicated that 62% desired career counseling, a comparable result. The greatest proportion of special education students expressing a desire for more counseling were the educationally handicapped (77%).

DISCUSSION

The purpose of the research reported in this paper was not to determine whether or not former special education students were leading successful adult lives. The purpose was to determine whether or not a computer-based system could be used to collect, manage, analyze, and report follow-up data about special education students. Therefore, this report has been organized to emphasize the systems development aspect of the study and de-emphasize the survey data collected in the field test. The methodology section contained discussions about the development of each part of the system as well as descriptors of the procedures necessary to implement the system. The section on results presented findings gathered in a field test to determine whether or not the system would work. It included information about the data collection procedures as well as questionnaire response data.

Three specific problems were addressed in this study. The first was how data could be collected using a format conducive to computer analysis. Both the survey questions and the response form in Appendix A were developed to solve this problem. The content validity of the items was established by special education teachers and administrators. The results of the pilot study revealed that it was possible to anticipate responses to items and therefore to design a computer processable form on which to record the responses. Data collected during the field test support that conclusion. Although it may not be possible to ask every type of desired question using such a format, it is possible to ask the questions which special education staff thought were the most important for collecting evaluative data.

The second consideration addressed was whether or not it would be possible to use one set of survey items for all special education students regardless of their type of exceptionality. Responses to items of various groups indicate that with one exception the items were appropriate for all groups. That exception is the question, "Do you have a high school diploma?" which is inappropriate for students who were in programs for the trainable mentally retarded. Items were judged to be appropriate for a group if at least some people in that group answered "yes" to a yes/no question or gave one of the answers to items with multiple responses. Another conclusion of this study is that it is appropriate to use one set of questions to survey all types of students.

The third concern in the study was the design of a system which could accommodate survey data for use by program managers in local schools, district Special Education Departments, and County Offices of Education; that is,

a system that could aggregate data as needed by various decision makers. To solve this problem a coding system was used. This system was discussed in the section on the development of the data analysis system. The data for each survey subject is coded according to the year of graduation/termination from school, type of program attended, school, district, and county. The computer program developed to aggregate and print the data provided for selection of any combination of students by using these codes. The reports in Appendixes D and E are examples of two ways in which data can be grouped and reported.

The final conclusion of this developmental research project is that a computer-based system can be used to manage data collection, analysis, and reporting for special education follow-up studies. This type of system, however, is not without its disadvantages. The major disadvantages are those imposed by the rigidity of computer programs. It would not be easy, for instance, to increase the number of items in the survey, though the wording could be changed with little problem. It would require major program changes to introduce an additional variable into the data analysis program (e.g., analysis by age of students), or to reformat the report printout. An obvious disadvantage of using a computer is that no open-ended items can be included in the survey. Perhaps less obvious, but nevertheless a problem, are the reactions of data users to grouped information presented on computer printouts. The data represents the lives of individual people about whom there is a special concern. A computer-based data analysis printout reports this information in a very mechanical and impersonal way. These disadvantages can not be overcome; they are inherent in the process.

Notwithstanding these disadvantages, this system has several major advantages, most of which have already been discussed. It is an accurate, systematic, and efficient procedure for managing information, since hand tabulation of data is not necessary. It provides a common set of data for decision makers at various levels and it allows for management of large quantities of data. For many data users these benefits will outweigh the disadvantages.

An unanticipated benefit of the system is that it can be used to help identify individuals who might qualify for special education programs under the emerging Search and Serve project. Individuals under 21 years of age, who have completed 12th grade, and who are in need of special education services are one of the primary target populations for the Search and Serve project. The follow-up system includes these individuals in the survey population. This benefit was used by one district participating in the field test to identify unemployed non-graduates for a special education vocational training program. The system could similarly be used to identify individuals who are qualified for other educational programs.

One potential benefit of this survey system has not yet been realized. Because the present system provides for storage of the response data and the information on the Student Master File, it would be possible to chart the progress of the students over several years. The same students could be surveyed annually, and additional computer programs could be written which would compare their responses from year to year. With this type of data, it would be possible to answer such questions as "Of the physically handicapped graduates who were unemployed at the end of 1975, how many were working by the end of 1976?"

The follow-up system discussed in this report has been presented as a complete model containing several subsystems, or parts. These parts can also be viewed as products which can be used independently. The three products of this system which have been developed and field tested are as follows:

1. A follow-up survey procedure which uses telephoning as the primary data collection technique.
2. A survey instrument which can be used to gather data about all special education students, regardless of their types of exceptionality.
3. A set of computer programs which assists in collection, analysis, and reporting of survey data at all levels of decision making.

Examples of the first two products have been provided in this report. Documentation of the computer system is available on request by writing to the following address:

Research and Data Processing Department
Sacramento County Office of Education
9738 Lincoln Village Drive
Sacramento, California 95827

REFERENCES

Blessing, K. An eleven year follow-up of adult former students of Wisconsin Public School classes for the trainable mentally retarded. Wisconsin State Department of Public Instruction, Madison, 1972, No. 1. (ED 101 508)

California State Department of Education. California Master Plan for Special Education. Sacramento: Author, 1974.

Howe, C. E. A comparison of mentally retarded high school students in work study versus traditional programs, the effect of off-campus placement. Final report of Project BR-6-8148, U.S. Department of Health, Education and Welfare, Bureau of Education of the Handicapped, 1967. (ED 029 403)

Knotting, C., & Brozovich, R. A descriptive follow-up study of a public school program for the emotionally disturbed. Final report of Project No. 8-5068, U.S. Department of Health, Education and Welfare, Bureau of Research, 1969. (ED 131 030)

Kokaska, C. J. The occupational status of the educable mentally retarded: A review of follow-up studies. Journal of Special Education, 1968, 2, 369-377.

McKinnon, R. et al. A follow-up study of graduates from a vocational rehabilitation program in a residential training center for the mentally retarded. California State Department of Rehabilitation, Sacramento, 1970. (ED 046 149)

Rhodes, L. E. A follow-up study of the postschool adjustment of selected TMR graduates in Sacramento County. Unpublished masters thesis, California State University, Sacramento, 1971.

Special Education Follow-Up Study

ROSTER OF

1974/75 Special Education Graduates/Terminators _____

School District

CC 1="A"

(2-3) (4-6)

0000 (7-10)

PLEASE PRINT OR TYPE

	School Name		Student's Name (last, first)	Street Address		City	Zip	Phone	Ethnic Group		Date Left mo/yr	G or T*	Sex	Name of Parent or Guardian	Special Ed. Program		
(11-13)		(14-16)	(17-47)	(48-73)	(80)	(17-31)	(32-36)	(37-46)		(47)	(50-51)	(52)	(53)	(54-73)		(74-75)	(80)
					"A"												

CONTINUATION CARD CC 1="B" DUP (2-16)

* G = Graduated
T = Terminated, dropped out, expelled, "no shows"

FOR USE BY THE COUNTY OFFICE OF EDUCATION FOR CODING PURPOSES ONLY

APPENDIX A

RUN ID: SPE020
RPT DATA: 11-15-75

S A C R A M E N T O C O U N T Y O F F I C E O F E D U C A T I O N

SPECIAL EDUCATION TELEPHONE LIST

LOCATION: DISTRICTS

STUDENTS NAME (ADDRESS/CITY/ZIP)	PARENTS NAME	PROG CODE	SEX	TELEPHONE NUMBER	ID NUMBER	MAIL LABL	SURV SENT	WRONG ADDRS	NA/ BUSY	WRONG NUM	NO PHONE	CAN'T ANS	HAVE DATA
CHILDS, JOHN	M/M JAMES MANN	31	M	916 444 1111	438	:	:	:	:	:	:	:	:
2000 ROSE LANE	SACRAMENTO 95826												
PEOPLE, JANE	MS MARY PEOPLE	17	F	209 456 7890	449	:	:	:	:	:	:	:	:
1234 5th ST.	ELK GROVE 95624												

USE ONE FORM PER STUDENT

SACRAMENTO COUNTY

SPECIAL EDUCATION FOLLOW-UP SURVEY

RESPONSE FORM

NAME OF INTERVIEWER _____

CC

EVERYONE

ID# Ø Ø Ø Ø
(1) (2) (3) (4) (5) (6) (7) 1-7

1. Do you have a high school diploma or its equivalent?.....Yes [1] No [2] 8

2. Are you going to school now?.....Yes [1] No [2] 9

3. What kind of school is it?
   - high school (TERMINATE INTERVIEW)..... [1]
   - college..... [2]
   - business or vocational school..... [3]
   - trade or technical school..... [4]
   - apprenticeshop training..... [5]
   - Retarded Adult Workshop, Windchimes, etc.... [6]
   - adult education classes..... [7]

   10

4. Are you working now?.....Yes (Go to 5).... [1] No (Skip to 10).. [2] 11

WORKING PEOPLE ONLY

5. Who helped you get your job? (Check one)
   - no one helped me..... [1]
   - friends, relatives..... [2]
   - high school teacher..... [3]
   - high school Work Experience Coordinator/Counselor..... [4]
   - State or Federal Employment Department/Agency..... [5]
   - private employment agency [6]
   - Dept. of Vocational Rehabilitation, Goodwill, etc..... [7]
   - other _____ [8]

   12

6. Where did you learn the skills for your job? (Check all that are named)
   - classes in school..... [1] 13
   - high school work experience..... [1] 14
   - on the job..... [1] 15
   - from a friend or relative..... [1] 16
   - Vocational Rehabilitation, Goodwill, etc.... [1] 17
   - vocational, business, or trade school..... [1] 18
   - college..... [1] 19
   - Armed Services..... [1] 20

7. Do you read things on your job? (instructions, manuals, letters).....Yes [1] No [2] 21

8. Do you write things on your job? (letters, job orders).....Yes [1] No [2] 22

9. Do you do any arithmetic on your job?.....Yes [1] No [2] 23

SKIP TO QUESTION 15

SPECIAL EDUCATION FOLLOW-UP SURVEY

NOT WORKING ONLY

CC

10. Have you tried to get a job since you left school?.....Yes [1] No [2] — 24

11. Have you worked since you left school?.....Yes [1] No [2] — 25

12. Are you able to work? (physically, mentally).....Yes [1] No [2] — 26

13. Do you feel you know how to go about finding a job?.....Yes [1] No [2] Unable to Work [3] — 27

14. Have you ever used Alta Regional Center, Department of Vocational Rehabilitation, or some similar community agency?.....Yes [1] No [2] — 28

EVERYONE

15. Have you ever taken any job training courses, like shop or typing?.....Yes [1] No [2] Don't know [3] — 29

16. Do you wish you had more job training in high school?.....Yes [1] No [2] — 30

17. Do you wish you had more counseling about jobs and careers in high school?.Yes [1] No [2] — 31

18. Do you feel that high school prepared you for everyday adult life?.....Yes [1] No [2] — 32

19. Who do you live with? (Check one) — 33
- alone..... [1]
- parents or relatives..... [2]
- husband or wife..... [3]
- roommate(s) in own apartment or house..... [4]
- in group or foster home..... [5]
- in hospital..... [6]
- in convalescent home..... [7]
- other _____ [8]

20. Could you take care of yourself well enough to live alone if you had to?..Yes [1] No [2] Don't Know [3] — 34

21. When you go someplace what kinds of transportation do you use? (Check those named)

Ask "Do you drive?" and "Do you ever take the bus?" if they do not name those two

- drive a car..... [1] — 35
- family or friends drive... [2] — 36
- bus..... [3] — 37
- taxi..... [4] — 38
- bicycle..... [5] — 39
- walk..... [6] — 40

22. Would you like me to send you information about community services in the Sacramento area which you might be able to use?.....Yes [1] No [2] — 41

Date mailed _____ Initials of sender _____

THANK YOU VERY MUCH FOR YOUR TIME — 80

SACRAMENTO COUNTY OFFICE OF EDUCATION

RUN ID: SPE040 PAGE: 88

REPT. DATE: 03-01-76 REPORT: 75

LOCATION: SACRAMENTO COUNTY

PROGRAM: ALL PROGRAMS

NAMES SUBMITTED: 210 NUMBER RESPONSES: 133 RETURNED: WRONG ADDRESS: 17

	NUMBER	PERCENT	EMPLOYED	UNEMPLOYED	COUNTY REPORT GRADUATES	COUNTY REPORT NON-GRADUATES
1. HAVE HIGH SCHOOL DIPLOMA OR EQUIVALENT						
YES	84	63	33	51	84	
NO	49	37	9	25		49
QUESTION TOTAL=	133					
2. CURRENTLY ATTENDING SCHOOL						
YES	51	38	8	28	23	28
NO	82	62	34	48	61	21
QUESTION TOTAL=	133					
3. TYPE OF SCHOOL CURRENTLY ENROLLED IN						
HIGH SCHOOL (NO FURTHER DATA COLLECTED)	15	29	1			15
COLLEGE (2 OR 4 YEARS)	14	27	2	12	13	1
BUSINESS OR VOCATIONAL SCHOOL	1	2		1		1
TRADE OR TECHNICAL SCHOOL	3	6	1	1	2	
APPRENTICESHIP TRAINING	1	2	1		1	
RETARDED ADULT WORKSHOP	16	31	4	11	5	11
ADULT EDUCATION CLASSES	3	6		3	2	1
QUESTION TOTAL=	52					
4. CURRENTLY EMPLOYED						
YES	42	36	42		33	9
NO	76	64		76	51	25
QUESTION TOTAL=	118					
5. RECEIVED HELP OBTAINING CURRENT JOB FROM						
NO ONE	15	33	13	2	12	3
RELATIVES OR FRIENDS	9	20	7	2	8	1
TEACHER AT SCHOOL	1	2	1		1	
HIGH SCHOOL WORK EXPERIENCE COUNSELOR	7	16	7		6	1
STATE OR FEDERAL EMPLOYMENT DEPARTMENT						
PRIVATE EMPLOYMENT AGENCY						
VOCATIONAL REHABILITATION, GOODWILL, ETC.	11	24	11		9	2
OTHER	2	4	1	1	1	1
QUESTION TOTAL=	45					
6. LEARNED SKILLS FOR CURRENT JOB FROM						
CLASSES IN PUBLIC SCHOOL	6		5	1	4	2
HIGH SCHOOL WORK EXPERIENCE	4		4		4	
ON-THE-JOB TRAINING	31		27	4	25	6
FRIENDS OR RELATIVES						
VOCATIONAL REHABILITATION, GOODWILL, ETC.	9		9		7	2
VOCATIONAL, TRADE, OR BUSINESS SCHOOL						
COLLEGE						
ARMED SERVICES	5		4	1	4	1
7. USE READING SKILLS ON PRESENT JOB						
YES	22	48	19	3	18	4
NO	24	52	21	3	19	5
QUESTION TOTAL=	46					

APPENDIX D

LOCATION: SACRAMENTO COUNTY
PROGRAM: ALL PROGRAMS

NAMES SUBMITTED: 210 NUMBER RESPONSES: 133 RETURNED: WRONG ADDRESS: 17

	NUMBER	PERCENT	:	EMPLOYED	UNEMPLOYED	COUNTY REPORT GRADUATES	COUNTY REPORT NON-GRADUATES
8. USE WRITING SKILLS ON CURRENT JOB							
YES	20	44	:	19	1	14	6
NO	25	56	:	20	5	22	3
QUESTION TOTAL=	45						
9. USE ARITHMETIC SKILLS ON CURRENT JOB							
YES	15	34	:	15		12	3
NO	29	66	:	23	6	23	6
QUESTION TOTAL=	44						
10. HAVE TRIED TO FIND A JOB SINCE LEAVING SCHOOL							
YES - NOT NOW WORKING	34	49	:	1	33	28	6
NO - NOT NOW WORKING	36	51	:	1	35	18	18
QUESTION TOTAL=	70						
11. HAVE WORKED SINCE LEAVING SCHOOL							
YES - NOT NOW WORKING	21	30	:	2	19	20	1
NO - NOT NOW WORKING	50	70	:		50	27	23
QUESTION TOTAL=	71						
12. FEEL PHYSICALLY AND MENTALLY ABLE TO WORK							
YES - NOT NOW WORKING	49	67	:	1	48	37	12
NO - NOT NOW WORKING	24	33	:	1	22	10	14
QUESTION TOTAL=	73						
13. FEEL THEY HAVE JOB-SEEKING SKILLS							
YES - NOT NOW WORKING	40	56	:	1	39	30	10
NO - NOT NOW WORKING	15	21	:	2	13	9	4
UNABLE TO WORK	16	23	:		15	6	10
QUESTION TOTAL=	71						
14. HAVE USED COMMUNITY RESOURCES FOR HANDICAPPED							
YES - NOT NOW WORKING	26	36	:	1	25	15	11
NO - NOT NOW WORKING	46	64	:	2	44	31	15
QUESTION TOTAL=	72						
15. HAVE TAKEN JOB TRAINING COURSES							
YES	50	45	:	18	32	40	10
NO	60	54	:	19	41	38	22
DON'T KNOW	1	1	:	1		1	
QUESTION TOTAL=	111						
16. WISH H.S. HAD PROVIDED MORE JOB TRAINING							
YES	75	68	:	27	48	53	22
NO	36	32	:	11	25	26	10
QUESTION TOTAL=	111						
17. WISH H.S. HAD PROVIDED MORE CAREER COUNSELING							
YES	71	66	:	26	45	50	21
NO	37	34	:	10	27	26	11
QUESTION TOTAL=	108						

SACRAMENTO COUNTY OFFICE OF EDUCATION

RUN ID: SPE040 PAGE: 90

REPT. DATE: 03-01-76 REPORT: 75

LOCATION: SACRAMENTO COUNTY

PROGRAM: ALL PROGRAMS

NAMES SUBMITTED: 210 NUMBER RESPONSES: 133 RETURNED: WRONG ADDRESS: 17

	NUMBER	PERCENT	%	EMPLOYED	UNEMPLOYED	COUNTY REPORT GRADUATES	COUNTY REPORT NON-GRADUATES
18. FEEL H.S. PREPARED THEM FOR EVERYDAY ADULT LIFE							
YES	48	43		18	30	32	9
NO	63	57		19	44	39	24
QUESTION TOTAL=	111						
19. RESIDE							
ALONE	6	5		1	5	3	3
WITH PARENTS OR RELATIVES	95	86		34	61	68	27
WITH SPOUSE	1	1			1	1	
WITH ROOMMATE IN OWN APARTMENT	3	3			3	3	
IN GROUP OR FOSTER HOME	3	3		1	2	1	2
IN HOSPITAL	1	1			1	1	
IN CONVALESCENT HOME	1	1		1			1
OTHER							
QUESTION TOTAL=	110						
20. FEEL ABLE TO LIVE ALONE IF NECESSARY							
YES	71	63		28	43	57	14
NO	31	28		8	23	13	18
DON'T KNOW	10	9		2	8	7	3
QUESTION TOTAL=	112						
21. USE THE FOLLOWING KINDS OF TRANSPORTATION							
DRIVE	46			19	27	39	7
FAMILY OR FRIENDS DRIVE	37			7	30	33	14
BUS	51			18	33	38	13
TAXI	1				1		1
BICYCLE	11			5	6	9	2
WALK	17			6	11	11	6
22. WANT INFO ABOUT AVAILABLE COMMUNITY SERVICES							
YES	90	80		30	60	62	28
NO	23	20		8	14	17	6
QUESTION TOTAL=	113						

SACRAMENTO COUNTY OFFICE OF EDUCATION

RUN ID: SPE040 PAGE: 19

REPT. DATE: 03-01-76 REPORT: 75

LOCATION: XXXXXXXXXX SCHOOL DISTRICT

PROGRAM: EDUCATIONALLY HANDICAPPED

NAMES SUBMITTED: 14 NUMBER RESPONSES: 13 RETURNED: WRONG ADDRESS:

	NUMBER	PERCENT	EMPLOYED	UNEMPLOYED	PROGRAM REPORT GRADUATES	PROGRAM REPORT NON-GRADUATES
1. HAVE HIGH SCHOOL DIPLOMA OR EQUIVALENT						
YES	10	77	5	5	10	
NO	3	23	3			3
QUESTION TOTAL=	13					
2. CURRENTLY ATTENDING SCHOOL						
YES	2	15	1	1	2	
NO	11	85	7	4	8	3
QUESTION TOTAL=	13					
3. TYPE OF SCHOOL CURRENTLY ENROLLED IN						
HIGH SCHOOL (NO FURTHER DATA COLLECTED)						
COLLEGE (2 OR 4 YEARS)	2	100	1	1	2	
BUSINESS OR VOCATIONAL SCHOOL						
TRADE OR TECHNICAL SCHOOL						
APPRENTICESHIP TRAINING						
RETARDED ADULT WORKSHOP						
ADULT EDUCATION CLASSES						
QUESTION TOTAL=	2					
4. CURRENTLY EMPLOYED						
YES	8	62	8		5	3
NO	5	38		5	5	
QUESTION TOTAL=	13					
5. RECEIVED HELP OBTAINING CURRENT JOB FROM						
NO ONE	4	57	4		2	2
RELATIVES OR FRIENDS	2	29	2		2	
TEACHER AT SCHOOL	1	14	1		1	
HIGH SCHOOL WORK EXPERIENCE COUNSELOR						
STATE OR FEDERAL EMPLOYMENT DEPARTMENT						
PRIVATE EMPLOYMENT AGENCY						
VOCATIONAL REHABILITATION, GOODWILL, ETC.						
OTHER						
QUESTION TOTAL=	7					
6. LEARNED SKILLS FOR CURRENT JOB FROM						
CLASSES IN PUBLIC SCHOOL	1		1			1
HIGH SCHOOL WORK EXPERIENCE						
ON-THE-JOB TRAINING	7		7		5	2
FRIENDS OR RELATIVES						
VOCATIONAL REHABILITATION, GOODWILL, ETC.						
VOCATIONAL, TRADE, OR BUSINESS SCHOOL						
COLLEGE						
ARMED SERVICES						
7. USE READING SKILLS ON PRESENT JOB						
YES	6	75	6		4	2
NO	2	25	2		1	1
QUESTION TOTAL=	8					

APPENDIX E

LOCATION: XXXXXXXXXX SCHOOL DISTRICT
PROGRAM: EDUCATIONALLY HANDICAPPED

NAMES SUBMITTED: 14 NUMBER RESPONSES: 13 RETURNED: WRONG ADDRESS:

	NUMBER	PERCENT	EMPLOYED	UNEMPLOYED	PROGRAM REPORT GRADUATES	PROGRAM REPORT NON-GRADUATES
8. USE WRITING SKILLS ON CURRENT JOB						
YES	7	88	7		4	3
NO	1	13	1		1	
QUESTION TOTAL=	8					
9. USE ARITHMETIC SKILLS ON CURRENT JOB						
YES	6	75	6		4	2
NO	2	25	2		1	1
QUESTION TOTAL=	8					
10. HAVE TRIED TO FIND A JOB SINCE LEAVING SCHOOL						
YES - NOT NOW WORKING	4	80		4	4	
NO - NOT NOW WORKING	1	20		1	1	
QUESTION TOTAL=	5					
11. HAVE WORKED SINCE LEAVING SCHOOL						
YES - NOT NOW WORKING	3	60		3	3	
NO - NOT NOW WORKING	2	40		2	2	
QUESTION TOTAL=	5					
12. FEEL PHYSICALLY AND MENTALLY ABLE TO WORK						
YES - NOT NOW WORKING	5	100		5	5	
NO - NOT NOW WORKING						
QUESTION TOTAL=	5					
13. FEEL THEY HAVE JOB-SEEKING SKILLS						
YES - NOT NOW WORKING	5	100		5	5	
NO - NOT NOW WORKING						
UNABLE TO WORK						
QUESTION TOTAL=	5					
14. HAVE USED COMMUNITY RESOURCES FOR HANDICAPPED						
YES - NOT NOW WORKING						
NO - NOT NOW WORKING	5	100		5	5	
QUESTION TOTAL=	5					
15. HAVE TAKEN JOB TRAINING COURSES						
YES	5	38	2	3	4	1
NO	7	54	3	2	5	2
DON'T KNOW	1	8	1		1	
QUESTION TOTAL=	13					
16. WISH H.S. HAD PROVIDED MORE JOB TRAINING						
YES	10	77	5	5	7	3
NO	3	23	3		3	
QUESTION TOTAL=	13					
17. WISH H.S. HAD PROVIDED MORE CAREER COUNSELING						
YES	9	75	4	5	6	3
NO	3	25	3		3	
QUESTION TOTAL=	12					

LOCATION: XXXXXXXXXX SCHOOL DISTRICT
PROGRAM: EDUCATIONALLY HANDICAPPED

NAMES SUBMITTED: 14 NUMBER RESPONSES: 13 RETURNED: WRONG ADDRESS:

	NUMBER	PERCENT	EMPLOYED	UNEMPLOYED	PROGRAM REPORT GRADUATES	PROGRAM REPORT NON-GRADUATES
18. FEEL H.S. PREPARED THEM FOR EVERYDAY ADULT LIFE						
YES	6	46	4	2	5	1
NO	7	54	4	3	5	2
QUESTION TOTAL=	13					
19. RESIDE						
ALONE						
WITH PARENTS OR RELATIVES	12	92	7	5	10	2
WITH SPOUSE						
WITH ROOMMATE IN OWN APARTMENT						
IN GROUP OR FOSTER HOME						
IN HOSPITAL						
IN CONVALESCENT HOME						
OTHER	1	8	1			1
QUESTION TOTAL=	13					
20. FEEL ABLE TO LIVE ALONE IF NECESSARY						
YES	11	85	8	3	8	3
NO	1	8		1	1	
DON'T KNOW	1	8		1	1	
QUESTION TOTAL=	13					
21. USE THE FOLLOWING KINDS OF TRANSPORTATION						
DRIVE	10		6	4	8	2
FAMILY OR FRIENDS DRIVE	1		1		1	
BUS	2		1	1	1	1
TAXI						
BICYCLE						
WALK	3		2	1	2	1
22. WANT INFO ABOUT AVAILABLE COMMUNITY SERVICES						
YES	11	85	7	4	8	3
NO	2	15	1	1	2	
QUESTION TOTAL=	13					

Follow-up System Procedures

	Procedure	Output	Person Responsible
1.	Identify population and record demographic data	Student Roster (Appendix A)	Schools and districts
2.	Audit and code population information on Student Roster		Research and Data Control staff
3.	Keypunch Student Roster information	Keypunched cards	Keypunch staff
4.	Create Student Master File	Computer tape	Programmer or Computer Operator
5.	Produce Telephone List or mail labels	Telephone List (Appendix B) or mail labels	Computer Operator or Programmer
6.	Conduct survey by telephone or mail	Survey Response Forms (Appendix C)	Research staff and trained telephone interviewers
7.	Audit Survey Response Forms and select reports wanted		Research staff
8.	Keypunch response data and control cards	Keypunch cards and control cards	Keypunch staff
9.	Match response data with Master File demographic data	Computer tape	Computer Programmer or Operator
10.	Tabulate data and produce reports	Report printouts (Appendices D and E)	Computer Programmer or Operator
11.	Disseminate reports		Research staff